

**BY ORDER OF THE COMMANDER  
30TH SPACE WING**

**30TH SPACE WING INSTRUCTION  
91-103**



**29 SEPTEMBER 2016**

***Safety***

**TRAIN HOLD CRITERIA**

**COMPLIANCE WITH THIS INSTRUCTION IS MANDATORY**

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This instruction implements Air Force Space Command Instruction (AFSPCI) 91-701, *Launch Safety Program Policy*. It describes responsibilities, procedures and the criteria to be used in determining train protection and subsequent “hold” or “proceed” decisions during launch operations. It further describes limits associated with delays when toxic hazard conditions are present, as well as disaster response procedures. It applies to all 30th Space Wing (30 SW) units involved in launch operations. Refer recommended changes and questions about this instruction to 30SW/SEL, 806 13th Street, Suite 319, Vandenberg AFB CA 93437-5230, using the AF Form 847, *Recommendation for Change of Publication*. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

**SUMMARY OF CHANGES**

This document has been revised. Changes include a minor rewording of background information (paragraph 2.), clarification of Flight Safety Analyst (FSA) and Mission Flight Control Officer (MFCO) actions (paragraphs 3.2 and 3.3) and updates to the *Glossary of References and Supporting Information* (attachment 1).

## 1. Responsibilities:

- 1.1. The Commander, 30th Space Wing (30 SW/CC), has the overall responsibility for the safety of all launch operations.
- 1.2. The Mission Flight Control Officer (MFCO) (2 ROPS) disseminates changes to railroad protection requirements.
- 1.3. The Aerospace Control Officer (ACO) (2 ROPS) monitors railroad traffic and coordinates with the Union-Pacific Manager Road Operations to ensure train protection during launch operations.
- 1.4. The Flight Safety Analyst (FSA) (30 SW/SEL) analyzes potential hazards to the railroad tracks due to the launch operation and determines what portions of the track require protective measures.
- 1.5. The Range Operations Commander (ROC) (2 ROPS) manages Range countdown activities and passes final Range clearance for launch.
- 1.6. The Union-Pacific Manager Road Operations (MRO) maintains radio contact with and controls all railroad traffic that traverses Vandenberg AFB. The MRO is located in San Luis Obispo.

**2. Background and Coordination.** The Union-Pacific Railroad (UPRR) Company owns 50 feet to 100 feet of the land to each side of the track that traverses Vandenberg AFB, with the rights of a private property owner to use the land. Most launch sites are located in areas where overflight of the railroad is unavoidable. A few northern launch sites near Point Sal may not require railroad safety precautions. The 30 SW maintains a relationship with UPRR to coordinate during launch countdown operations through direct line communication between the MRO and the ACO in the Area Control Center.

## 3. Operations Procedures.

- 3.1. The ACO will ensure the current location, movement, and schedules for all trains in the Vandenberg AFB area are documented and reported to the ROC and MFCO as defined in 30SWI13-207, *Range Surveillance*.
- 3.2. The FSA will analyze predicted debris and toxic hazards to UPRR assets during the countdown, update the train protection area if necessary, and provide it to the MFCO. The train protection area will be based on the Impact Limit Line, the debris risk contours, the Tier 2 catastrophic abort toxic hazard corridor (THC), or the Tier 2 normal THC, whichever is more conservative.
- 3.3. The MFCO will pass the updated train protection area to the ACO as soon as possible. The MFCO and ROC will coordinate countdown “hold”, and ability to “pick up the count” decisions based on train status received from the ACO.
- 3.4. The ROC will manage all range user program objectives and the optimum liftoff time within the launch window. The ROC will coordinate any range user objectives or decisions that may affect, or be affected by, train hold criteria with the MFCO and ACO. When a critical train problem arises during the countdown, but prior to terminal count, the ROC will coordinate with the range user. The user decides when the best time is to hold or when to

resume the launch countdown. The ROC will coordinate with the MFCO and ACO to determine range readiness to meet these times.

3.5. A launch operation will be held if a train is projected to be in the train protection area and the Launch Decision Authority (LDA) has not granted a waiver for the train to be there at liftoff. The ACO will attempt to coordinate the holding of trains that conservatively might be in the train protection area at liftoff. If the MRO cannot or will not hold a train, the ACO will report to the MFCO and the ROC the time the train is expected to clear the hazard area. The ROC will coordinate a new launch time with the range user, MFCO and ACO.

3.6. In the event of a launch area destruct action, a self-abort or planned jettison where debris is suspected to impact railroad assets, the MFCO will instruct the ACO to request the MRO stop all trains until the track can be inspected and cleared by the UPRR. For on-base inspection and clearance, the Launch Support Team (LST) and Emergency Operations Center (EOC) will assist UPRR personnel in inspecting and clearing the UPRR tracks. The ACO will notify the MFCO and ROC when a train has stopped and when UPRR has determined the tracks to be clear.

3.7. If a catastrophic abort occurs and updated THC analysis shows a Tier 2 over a stationary or moving train (train was held due to hazardous conditions or was allowed to proceed through an area originally not deemed hazardous), the MFCO will pass to the ACO identification of the spur tracks where the Tier 2 THC is entered and exited. The ACO will request that the MRO advise the train engineer to close all windows and doors while in this area. If the train must be held until the tracks are certified clear of debris, the ACO will request the engineer maintain a buttoned-up configuration until further notice. If the train is moving, no attempt will be made to stop it for toxic hazards unless a Tier 3 THC is anticipated on its path. The MFCO will notify the ACO and the ROC when hazardous conditions no longer exist and trains are cleared to pass through the previously identified THC.

J. CHRISTOPHER MOSS, Colonel, USAF  
Commander

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

30SWI13-207, *Range Surveillance*, 20 November 2006

***Adopted Forms***

AF Form 847, *Recommendation for Change of Publication*, 22 September 2009

***Abbreviations and Acronyms***

**2 ROPS**—2d Range Operations Squadron

**30 SW**—30th Space Wing

**30 SW/CC**—30th Space Wing Commander

**30 SW/SEL**—30th Space Wing Launch Safety

**ACO**—Aerospace Control Officer

**AFMAN**—Air Force Manual

**AFRIMS**—Air Force Records Information Management System

**EOC**—Emergency Operations Center

**FSA**—Flight Safety Analyst

**LDA**—Launch Decision Authority

**LST**—Launch Support Team

**MFCO**—Mission Flight Control Officer

**MRO**—Manager Road Operations

**RDS**—Records Disposition Schedule

**ROC**—Range Operations Commander

**THC**—Toxic Hazard Corridor

**UPRR-Union**—Pacific Railroad